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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,756	07/12/2001	Nobuyuki Hirayama	862.C2290	9593
5514	7590	01/23/2007	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			THOMPSON, JAMES A	
		ART UNIT	PAPER NUMBER	
		2625		
		MAIL DATE	DELIVERY MODE	
		01/23/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)
	09/902,756	HIRAYAMA, NOBUYUKI
	Examiner	Art Unit James A. Thompson 2625

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 December 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) The period for reply expires 3 months from the mailing date of the final rejection.
 b) The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. The proposed amendment(s) filed after a final rejection; but prior to the date of filing a brief, will not be entered because
- (a) They raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) They raise the issue of new matter (see NOTE below);
 - (c) They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. Applicant's reply has overcome the following rejection(s): _____.

6. Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. For purposes of appeal, the proposed amendment(s): a) will not be entered, or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 10-22.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.
12. Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 22 December 2006 have been fully considered but they are not persuasive.

First, Examiner appreciates Applicant's discussion of the relationship between Takamura (US Patent 6,493,109) and the presently recited claims. Examiner also appreciates Applicant's well crafted arguments. Furthermore, Examiner strongly agrees with Applicant's statements on page 8, lines 7-21 with respect to the advantages of the claimed invention. However, Examiner cannot agree with Applicant's arguments summarized on page 8, line 22 to page 9, line 6 and set forth in detail in sections A, B and C of Applicant's present arguments.

In Section A, Applicant argues that Takamura does not teach an ink supply opening of a print head substrate. *Examiner replies* that the teachings set forth in column 8, lines 33-44 of Takamura demonstrate that an ink supply opening of a print head substrate is inherent since a portion of said teaching states: "In this apparatus, there are provided output pins D01 to D0n outputting drive waveforms for driving a print head (not shown) in which n output devices (such as an LED (light emitting device), a heat emitting device and ink containers for an inkjet head)". The printhead itself is not shown in the figures of Takamura, but the output pins along with the ink containers for an inkjet head clearly demonstrates an ink supply opening of a print head substrate. Without an ink supply opening for said ink containers, said ink containers can do nothing with respect to the printing of the image data. Thus, while not expressly set forth in Takamura, an ink supply opening of a print head substrate is clearly inherent based on the teachings set forth therein.

In Section B, Applicant argues that Takamura does not teach an array of printing elements provided along an ink supply opening of a print head substrate. *Examiner replies* that the output pins taught in column 8, lines 33-44 of Takamura are used to drive an array of printing elements provided along an ink supply opening of a print head substrate, as evidenced by the fact that, in column 8, lines 33-44 of Takamura, the n output pins (D01 to D0n) drive n output devices. Each of said output devices are taught by Takamura as being an LED, a heat emitting device, and an ink container for an ink jet head. Thus, considering the whole of what is taught in column 8, lines 33-44 of Takamura, it is clear that an array of printing elements (each output device corresponding to each particular output pin) are provided along an ink supply opening of a print head substrate (each ink supply opening for each ink container used to supply the ink jet head).

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In Section C, Applicant argues that Takamura does not show a plurality of shift registers provided at both longitudinal ends of an ink supply opening. *Examiner replies* that, as stated above, the ink supply opening is an inherent part of the disclosure of Takamura, and there is a corresponding ink supply opening for each output pin expressly displayed in figure 17 of Takamura. As taught by Takamura, each output pin controls a separate output device, and without a corresponding ink supply opening, there would be no ink to be output by the output devices through the control of the output pins. Furthermore, while it is true that figure 17 of Takamura is a circuit block diagram, it does not follow that the actual circuit, along with the required wiring, would not be built in the same pattern as displayed in figure 17 of Takamura. The use of a different layout on a physical circuit board would serve no substantial purpose and using longer wires or a more convoluted wiring structure than shown in the circuit block diagram of figure 17 of Takamura would only impair the function of the resultant printing system. In the normal course of circuit construction, one of ordinary skill in the art would clearly try to keep the actual wiring and circuit construction as simple as possible since, as is well-known in the circuit design arts, excess wiring causes waste of materials, potential cross-talk between wires, and other various difficulties that circuit designers generally wish to avoid as the normal course of circuit design and construction. Furthermore, since the only guidance given by Takamura as to the final construction of the physical circuit is shown in the block circuit diagrams, one must take the block circuit diagrams as the shape of the physical circuit. To propose differently would be an exercise in speculation.

In Conclusion: Since Applicant's arguments have been fully rebutted and the presently recited claims are shown to be taught by the prior art of record, the finality of the previous office action, mailed 22 September 2006, is maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James A. Thompson
Examiner
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16 January 2007



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